

ATP6AP2 Protein, Human (His)

Cat. No.:	HY-P72099
Synonyms:	APT6M8 9; APT6M8-9; ATP6AP2; ATP6IP2; ATP6M8-9; ATPase H+; -transporting lysosomal accessory protein 2; ATPase H+; -transporting lysosomal-interacting protein 2; ATPase H+ transporting lysosomal accessory protein 2; ATPase; H+ transporting; lysosomal vacuolar proton pump; membrane sector associated protein M8 9;
Species:	Human
Source:	E. coli
Accession:	O75787 (N17-D350)
Gene ID:	10159
Molecular Weight:	Approximately 40 kDa

PROPERTIES

AA Sequence	<pre> NEFSILKSPG SVVFRNGNWP IPGERIPDVA ALSMGFSVKE DLSWPGLA VG NLFHRPRATV MVMVKGVNKL ALPPGSVISY PLENAVPFSL DSVANSIHS L FSEETPVVLQ LAPSEERVYM VGKANSV F E D LSVTLRQLRN RLFQENS VLS SLPLNSLSRN NEVDLLFLSE LQVLHDISSL LSRHKHLAKD HSPDLYSLEL AGLDEIGKRY GEDSEQFRDA SKILVDALQK FADDMYSLYG GNAVVELVT V KSFDTSLIRK TRTILEAKQA KNPASPYNLA YKYNFEYSVV FNMVLWIMIA LALAVIITSY NIWNMDPGYD SIIYRMTNQK IRMD </pre>
Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol or 50 mM Tris-HCL, 300 mM NaCl, 200 mM arginine, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The ATP6AP2 protein, a multifunctional player in cellular processes, serves as a renin and prorenin cellular receptor while contributing to the assembly of the lysosomal proton-transporting V-type ATPase (V-ATPase) and acidification of the endo-lysosomal system. It is implicated in renin-dependent cellular responses, activating ERK1 and ERK2, and plays a potential role in the renin-angiotensin system (RAS) by enhancing the catalytic efficiency of renin in AGT/angiotensinogen conversion to angiotensin I. Its involvement in V-ATPase assembly and lysosomal acidification regulates protein degradation, influencing signaling pathways crucial for proper brain development, synapse morphology, and synaptic transmission. ATP6AP2 interacts with renin and functions as an accessory component of the V-ATPase protein pump. Its interactions with ATP6AP1, ATP6V0D1, TMEM9, and VMA21 further underscore its intricate role in the assembly and regulation of the V-ATPase complex. This multifaceted functionality positions ATP6AP2 as a key orchestrator in various cellular pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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